

MONTHLY NOTICES
OF THE
ROYAL ASTRONOMICAL SOCIETY.

VOL. LXI.

MARCH 8, 1901.

No. 5

Dr. J. W. L. GLAISHER, F.R.S., PRESIDENT, in the Chair.

Robert William Chapman, M.A., B.C.E., Lecturer in Engineering and Physical Science in the University, Adelaide, South Australia ; and

Charles J. Isaac, Head of the Upper Nautical School, Greenwich Hospital Schools, and 6 Maze Hill, Greenwich, S.E.,

were balloted for and duly elected Fellows of the Society.

The following Candidates were proposed for election as Fellows of the Society, the names of the proposers from personal knowledge being appended :—

Jnan Saran Chakravarti, M.A., Assistant Accountant-General, Rangoon, Burma (proposed by P. Doyle) ;

Charles Sidney Mence, Teacher of Navigation and Nautical Astronomy, 49 Watling Street, E.C. (proposed by V. L. D. Broughton) ;

The Rev. John Stutter, O.S.B., Acton Burnell, Shrewsbury (proposed by A. C. D. Crommelin) ; and

Ernest George Wainwright, B.A., Lecturer in Mathematics and Physical Science, St. John's College, Battersea, S.W. (proposed by A. E. Moore).

One hundred and two presents were announced as having been received since the last meeting, including, among others :—

Galileo, Opere, Edizio Nazionale, vol. 8, presented by the Italian Government ; Leipzig, Astronomische Gesellschaft Catalog, Zone -2° bis $+1^{\circ}$ (Nicolajew), presented by the Society ; F. Nansen, Scientific Results of the Norwegian North Polar Expedition, pt. vi. Astronomical Observations, arranged and reduced under the supervision of H. Geelmuyden, presented by the Editor ; Potsdam, Astrophysikalisches Observatorium, Photographische Himmelskarte, Band 2, presented by the Observatory ; H. H. Turner, Modern Astronomy, presented by the Author.

Lantern slides from photographs of the total solar eclipse of 1900 May 28, presented by Count de la Baume Pluvinel.

*On the Oxford Photographic Determinations of Stellar Parallax.
Reply to the Criticisms of Sir David Gill.* By H. H. Turner,
D.S.C., F.R.S., Savilian Professor.

In the *Annals of the Royal Observatory, Cape of Good Hope*, vol. viii. Part II., "Researches on Stellar Parallax made with the Cape Heliometer," recently published, Sir David Gill criticises adversely the observations of stellar parallax at the Oxford University Observatory in the years 1886 to 1892, saying that they "cannot be regarded as of proved value, and are certainly not reliable within limits corresponding to the probable errors assigned to them by Professor Pritchard" (Introduction, p. xv). I had nothing whatever to do with this work, which was completed and published before I succeeded Professor Pritchard as Director of the Observatory. But the reasons given by Sir David Gill for his opinion are based on the printed figures, which lead me to such diametrically opposite conclusions that I feel bound to draw attention to the matter. The main reason given for condemning the results is that the determination of scale value on the photographs is faulty. These are Sir David Gill's actual words :—

"Pritchard's method of determining the scale value would be justified if numbers of pairs of stars on the same plate were measured, and the correction for scale value was derived from the mean of all these measures instead of from only one pair. But this is precisely what Pritchard does *not* do. In his first publication on stellar parallax (*Fasciculus III., Oxford University Observations*) he measures two pairs of comparison stars for each investigation of parallax, but he derives corrections for scale value separately from the measures of the stars $a-b$ and $c-d$. It is evident that if the observations were reliable we should